Minimum Qualification Specifications for the Class:

TELEPHONE ENGINEER

Basic Education/Experience Requirements:

All applicants must meet one of the requirements specified in A, B or C below:

- A. Graduation from a school of engineering in an accredited college or university with a major in electrical or electronic engineering;
- B. Professional or advanced technical experience involving the application and knowledge of the fundamental physical and mathematical sciences underlying professional engineering including physics, chemistry, mathematics through integral calculus and electrical engineering sciences such as basic circuit analysis, basic electronics, energy conversion, fields and waves, signal and system analysis, engineering drawing and other specialized courses. Such experience must be substantially equivalent to the knowledge and understanding gained by completion of a college training leading to a bachelor's degree in electrical or electronic engineering; or
- C. A combination of college training in engineering and experience mentioned in B above substantially equivalent to completion of college training leading to a bachelor's degree in electrical or electronic engineering.

Experience Requirements:

Except for the substitutions provided for in this specification, applicants must have had progressively responsible experience of the kind and quality described in the statements below and in the amounts shown below, or any equivalent combination of training and experience.

Specialized Experience: Four (4) years of responsible professional engineering experience in the field of voice and telephone communication operations which provided a thorough knowledge of communication processes, procedures, techniques and methodology; voice and telephone communications network and system design; voice and telephone communications switching and traffic routing; electronic communications engineering principles and their application; distribution cable design (including conduit system design); and the ability to perform difficult

voice and telephone transmission communications studies and analyses including the preparation of original technical and contract specifications.

Of the four (4) years of professional engineering experience, one (1) year must have involved planning, designing, implementing, managing, operating, and/or providing technical support, including troubleshooting for a multi-node telecommunication distribution system which includes a multi-node optical fiber cable network. The experience must have included actual experience with the planning of a telecommunication distribution system.

Note: In some situations, experience which is not of itself clearly professional electronic engineering experience may be accepted in lieu of "professional" electronic engineering experience. In such cases, the experience must have been preceded by prior "professional" electronic engineering experience and must contribute directly and significantly to the candidate's professional electronic engineering competence. For example, an engineer may be assigned to a management or a computer systems analysis position in preparation for assumption of higher level responsibilities in engineering administration.

Supervisory Aptitude: Applicants must possess supervisory aptitude. Supervisory aptitude is the demonstration of aptitude or potential for the performance of supervisory duties through successful completion of regular or special assignments which involve some supervisory responsibilities or aspects; by serving as a group or team leader, or in similar work in which opportunities for demonstrating supervisory capabilities exist; by the completion of training courses in supervision accompanied by application of supervisory skills in work assignments; or by favorable appraisals by a supervisor indicating the possession of supervisory potential.

Substitutions Allowed:

A master's degree in the field of electrical or electronic engineering from an accredited college or university may be substituted for one (1) year of the required Specialized Experience.

A Ph.D. degree in the field of electrical or electronic engineering from an accredited college or university may be substituted for two (2) years of the required Specialized Experience.

<u>Note</u>: The master's and/or Ph.D. degree described above may not be used to substitute for any of the one (1) year of required experience with a multi-node telecommunication distribution system.

Quality of Experience:

Possession of the required number of years of experience will not in itself be accepted as proof of qualification for a position. The applicant's overall experience must have been of such scope and level of responsibility as to conclusively demonstrate that he/she has the ability to perform the duties of the position for which he/she is being considered.

License Requirement:

Applicants must possess a valid license to drive in the State of Hawaii.

Tests:

Applicants may be required to qualify on an appropriate examination.

Physical and Medical Requirements:

Applicants must be physically able to perform, efficiently and effectively, the essential duties of the position which typically require the ability to read without strain printed material the size of typewritten characters, glasses permitted; lift, carry, and move objects weighing up to 50 pounds; distinguish colors; and hear the conversational voice, with or without a hearing aid, or the ability to compensate satisfactorily. Disabilities will not automatically result in disqualification. Those applicants who demonstrate that they are capable of performing the essential functions of the position with or without reasonable accommodation will not be disqualified under this section.

Any condition which would cause applicants to be a hazard to themselves or others is cause for disqualification.

Any disqualification under this section will be made only after a review of all pertinent information including the results of the medical examination, and requires the approval of the Director of Human Resources Development.

Mental/Emotional Requirements:

All applicants must possess emotional and mental stability appropriate to the job duties and responsibilities and working conditions.

This is an amendment to the minimum qualification specification for the class TELEPHONE ENGINEER, approved on March 4, 1983.

DATE APPROVED: 10/31/00

DAVIS K. YOGI

Director of Human Resources Development